

ABSTRACT

In a method of processing a female spline of a hub unit for supporting a wheel, a hole 3a which is formed to be cylindrical is provided on a shaft portion 3c of a hub unit 103 before plastically deforming by caulking (or clinching), and after the plastically deforming by caulking (or clinching), a female spline is formed on the hole 3a by semi-dry or dry broaching. The hole 3a which is formed to be cylindrical after plastically deforming by caulking (or clinching) has the form that the size is greater at a portion nearer a portion 3d plastically deforming by caulking (or clinching) of the shaft portion 3c for an estimated amount of contraction caused by the plastically deforming by caulking (or clinching) or the press-fitting of an inner race element.